

# (12) UK Patent Application (19) GB (11) 2 388 134 (13) A

(43) Date of Printing by UK Office 05.11.2003

(21) Application No: 0314846.7

(22) Date of Filing: 11.01.2002

(30) Priority Data:  
(31) 60262434 (32) 17.01.2001 (33) US

(86) International Application Data:  
PCT/US2002/000677 En 11.01.2002

(87) International Publication Data:  
WO2002/068792 En 06.09.2002

(71) Applicant(s):  
Enventure Global Technology  
(Incorporated In USA - Delaware)  
16200 A.Park Row, Houston, Texas 77084,  
United States of America

(72) Inventor(s):  
Robert Lance Cook  
Lev Ring

(continued on next page)

(51) INT CL<sup>7</sup>:  
E21B 43/10

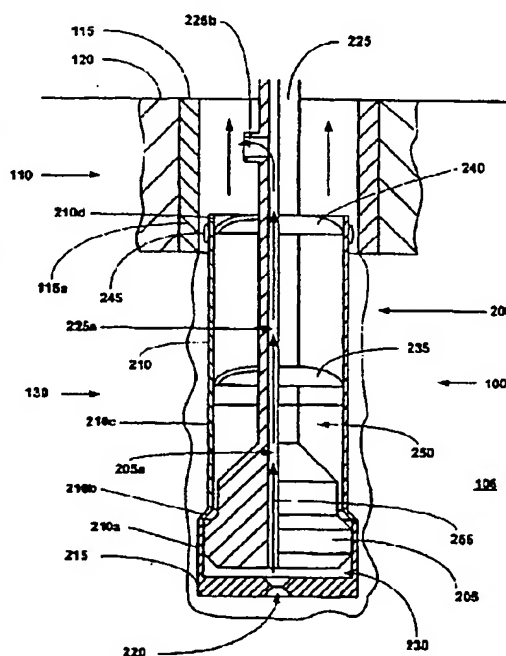
(52) UK CL (Edition V):  
E1F FLA

(56) Documents Cited by ISA:  
US 6085838 A

(58) Field of Search by ISA:  
Other  
U.S.:  
166/380,207,85.1,177.4,212,216,217,242.1,378

(54) Abstract Title: Mono-diameter wellbore casing

(57) A mono-diameter casing formed when a tubular liner (210) and an expansion cone (205) are positioned within a new section for a wellbore (100) and the tubular liner (210) is overlapped with a pre-existing casing (115). A hardening fluid is injected into the section of the wellbore (100) below the level of the expansion cone (205) and into the annular region between the tubular liner (210) and the wellbore (100). The inner and outer regions of the tubular liner (210) are isolated. Then a non hardening fluid is injected into the interior region of the tubular liner (210) to pressurize it below the expansion cone (205). The overlapping portion of the pre-existing casing (115) and the tubular liner (210) are then expanded using an expansion cone (205).



GB 2 388 134 A

**GB2388134 A continued**

**(74) Agent and/or Address for Service:**

**Haseltine Lake & Co**

**Imperial House, 15-19 Kingsway,**

**LONDON, WC2B 6UD, United Kingdom**

2388134

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
6 September 2002 (06.09.2002)

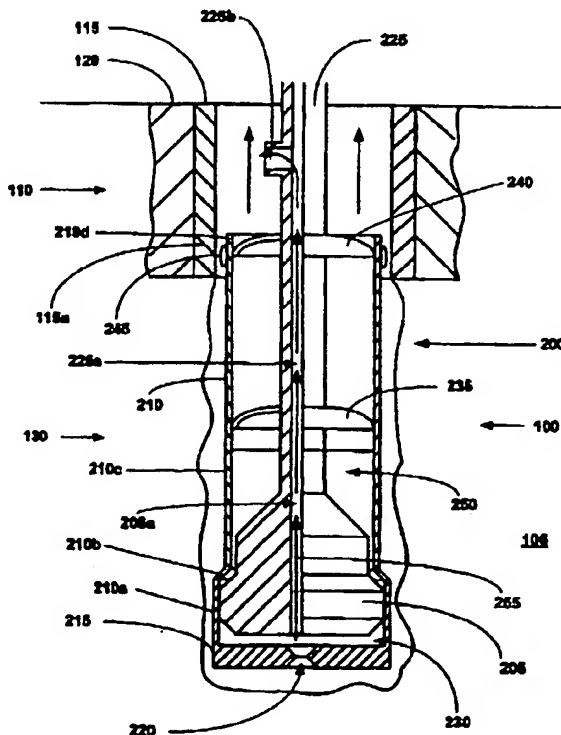
PCT

(10) International Publication Number  
WO 02/068792 A1

- (51) International Patent Classification<sup>7</sup>: E21B 19/16, 23/00 RING, Lev [RU/US]; 14126 Heatherhill Place, Houston, TX 77077 (US).
- (21) International Application Number: PCT/US02/00677 (74) Agents: MATTINGLY, Todd et al.; Haynes & Boone, LLP, Suite 4300, 1000 Louisiana Street, Houston, TX 77002-5012 (US).
- (22) International Filing Date: 11 January 2002 (11.01.2002)
- (25) Filing Language: English (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (26) Publication Language: English
- (30) Priority Data: 60/262,434 17 January 2001 (17.01.2001) US (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, ...)
- (71) Applicant (*for all designated States except US*): ENVEN-  
TURE GLOBAL TECHNOLOGY [US/US]; 16200 A.  
Park Row, Houston, TX 77084 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): COOK, Robert,  
Lance [US/US]; 934 Caswell Court, Katy, TX 74450 (US).

[Continued on next page]

(54) Title: MONO-DIAMETER WELLBORE CASING



(57) Abstract: A mono-diameter casing formed when a tubular liner (210) and an expansion cone (205) are positioned within a new section for a wellbore (100) and the tubular liner (210) is overlapped with a pre-existing casing (115). A hardening fluid is injected into the section of the wellbore (100) below the level of the expansion cone (205) and into the annular region between the tubular liner (210) and the wellbore (100). The inner and outer regions of the tubular liner (210) are isolated. Then a non hardening fluid is injected into the interior region of the tubular liner (210) to pressurize it below the expansion cone (205). The overlapping portion of the pre-existing casing (115) and the tubular liner (210) are then expanded using an expansion cone (205).

WO 02/068792 A1



GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent  
(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
NE, SN, TD, TG).

— with amended claims

**Declaration under Rule 4.17:**

— of inventorship (Rule 4.17(iv)) for US only

**Published:**

— with international search report

**Date of publication of the amended claims:** 31 October 2002

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*